

## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/608,809	06/27/2003	Gregory M. Dobbs	210-609 INT	7558
20874	7590 12/08/2004		EXAM	NER
WALL MARJAMA & BILINSKI 101 SOUTH SALINA STREET		SPITZER, ROBERT H		
SUITE 400			ART UNIT	PAPER NUMBER
SYRACUSE, NY 13202			1724	

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.				
	Application No.	Applicant(s)			
Office Action Summary	10/608,809	DOBBS ET AL.			
Office Action Summary	Examiner	Art Unit			
The MAN INC DATE AND	Robert H. Spitzer	1724			
The MAILING DATE of this communication Period for Reply	n appears on the cover sheet w	ith the correspondence address			
A SHORTENED STATUTORY PERIOD FOR R THE MAILING DATE OF THIS COMMUNICATION  Extensions of time may be available under the provisions of 37 Clafter SIX (6) MONTHS from the mailing date of this communication  If the period for reply specified above is less than thirty (30) days,  If NO period for reply is specified above, the maximum statutory period for reply within the set or extended period for reply will, by any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	ON.  FR 1.136(a). In no event, however, may a interpretable in a reply within the statutory minimum of third error will apply and will express IX (6) MON example.	eply be timely filed by (30) days will be considered timely. THS from the mailing date of this communication.			
Status					
1) Responsive to communication(s) filed on	27 June 2003.				
•					
3)☐ Since this application is in condition for all		ers prosecution as to the merite is			
closed in accordance with the practice und	der <i>Ex par</i> te Quayle, 1935 C.D	. 11, 453 O.G. 213.			
Disposition of Claims		,			
4)⊠ Claim(s) <u>37-48</u> is/are pending in the applic	alian				
4a) Of the above claim(s)	ation.				
4a) Of the above claim(s) is/are with 5) Claim(s) is/are allowed.	idrawn from consideration.				
6)⊠ Claim(s) <u>37-48</u> is/are rejected.					
7) Claim(s) is/are rejected.					
	- 1/- 1 P	•			
8) Claim(s) are subject to restriction ar	nd/or election requirement.				
Application Papers					
9)☐ The specification is objected to by the Exan	niner.				
10)☐ The drawing(s) filed on is/are: a)☐	accepted or b) objected to b	ov the Examiner			
Applicant may not request that any objection to	the drawing(s) be held in abevand	ce. See 37 CFR 1.85(a)			
Replacement drawing sheet(s) including the co	rrection is required if the drawing(s	s) is objected to See 37 CER 1 121(4)			
11)☐ The oath or declaration is objected to by the	Examiner. Note the attached	Office Action or form PTO-152			
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for fore a) All b) Some * c) None of:	eign priority under 35 U.S.C. §	119(a)-(d) or (f).			
,, , , , ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,					
= depice of the priority docum	ents have been received.				
= a seption of this priority docum	ents have been received in Ap	plication No			
- Programme sopress of the p	priority documents have been r	eceived in this National Stage			
application from the International Bur	eau (PCT Rule 17.2(a)).				
* See the attached detailed Office action for a	list of the certified copies not re	eceived.			
attachment(s)					
• •	» П	(DTO 440)			
) Notice of References Cited (PTO-892)		mmary (PTO-413)			
) Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Su Paper No(s)/	Mail Date			
<ul> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/Paper No(s)/Mail Date</li> </ul>	Paper No(s)/	Mail Date  prmal Patent Application (PTO-152)			

Application/Control Number: 10/608,809

Art Unit: 1724

## **DETAILED ACTION**

Page 2

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1724.

- 2. On the drawing figures, the specification has no description of numeral "44" on Fig. 15.
- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 4. Claims 38,39,42,43,46 and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. All of these claims are indefinite because the instant specification does not contain any support for these limitations, as there is no specific mention of the either the hydrocarbon copolymer comprising "at least one arylvinyl monomer" or that such monomer "is at least partially sulfonated". While applicants may be using a material which has those properties, the instant specification must include the exact language, if it is supported thereby, that is included in these claims.
- 5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 6. Claims 37,40,41,44,45 and 48 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by both the process of use and apparatus of Yamada et al.

Application/Control Number: 10/608,809

Art Unit: 1724

Page 3

(4,449,992), wherein heat and moisture are transferred between outside air and room air using a heat/water vapor conducting membrane made from at least partially sulfonated random hydrocarbon copolymers. See col. 5, line 9 through col. 7, line 52 and Example 4.

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. Claims 38,39,42,43,46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (4,449,992) in view of Fukui et al. (5,620,500). The claims differ from the disclosure of Yamada et al. ('992) in the membrane including at least one partially sulfonated arylvinyl monomer. Fukui et al. ('500) show a membrane which includes at least partially sulfonated random hydrocarbon copolymers with at least one partially sulfonated arylvinyl monomer, at col. 2, line 32 through col. 3, line 28. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a membrane which includes at least partially sulfonated arylvinyl monomer in the process and apparatus of Yamada et al. ('992), in view of the showing of Fukui et al. ('500), as the membrane has utility for the transport of water vapor.
- 9. The remaining references listed on the PTO-892 show art of interest, many of which show the use of NAFION brand membranes for the transport of water vapor therethrough.

Art Unit: 1724

- 10. As to the request for an interference, the same is not applicable at this time because of the above indefinitiveness and prior art rejections of the instant claims. Until such claims are in condition for allowance, no interference can be set up. The examiner is puzzled, however, because it appears that the purchased DIAS membrane which applicants are using is probably the same membrane as used in the Wnek et al. (6,413,298) reference. Thus, applicants are required to provide the examiner with any product information which they may have for that DIAS membrane.
- 11. Applicants response to this Office action should also include the following editorial changes: para. [0012], lines 3 and 5, "perfluronated" should be "perfluorinated"; para. [0013], lines 2,10 and 13, "perfluoronated" should be "perfluorinated"; para. [0035], line 2, "polytetrafuroehtylene" should be "polytetrafluoroethylene"; para. [0036], line 2, "polytetrafluroehtylene" should be "polytetrafluroethylene"; para. [0040], lines 10,11,20 and 22, "perfluoronated" should be "perfluorinated"; para. [0041], line 16, "perfluoronated" should be "perfluorinated"; para. [0042], line 2, "perfluoronated" should be "perfluorinated"; para. [0042], line 2, "perfluoronated" should be "perfluorinated"; para. [0042], line 4, "the" should be deleted; para. [0045], line 16, "of two" should be "two"; para. [0048], line 4, "12c" should be "12b"; para. [0050], line 17, "Fig." should be "Figs."; para. [0053], lines 20 and 24, "Fig." should be "Figs."; para. [0054], lines 2 and 3, "Fig." should be "Figs."; para. [0056], line 5, "polytetrafluroehtylene" should be "polytetrafluroethylene"; and, para. [0057], line 16, "Fig." should be "Figs.".
- 12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Spitzer whose telephone number is (571)

Application/Control Number: 10/608,809

Art Unit: 1724

Page 5

272-1167. The examiner can normally be reached on Monday-Thursday from (5:30AM-4:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 7, 2004

Robert H. Spitzer Primary Examiner Art Unit 1724

December 7, 2004